

Chapter 6

THE PLAN AND ITS IMPLEMENTATION

This Transportation Plan, in its final form, is the product of computerized modeling and human deliberation. We have based it on today's street system, built it on projects we expect to be funded by 2010 and augmented it with reasonable solutions to problems likely to arise after 2010. Our plan describes a two-stage process. Each stage covers a specific period of time: 1999 through 2010, and 2011 through 2025. The first period includes improvements we can expect and the second covers improvements we will still need.

We stress again that this plan serves as a way to achieve community-wide goals. It is not an end in itself. We know that conditions and needs will change over time; we can project the future but we cannot see it. Through this plan, we can only provide an overview, a framework, a context for addressing change over time. It is not the intention of this plan, its authors, or its adopting jurisdictions to only seek these solutions. Responsible agencies will be alert to the realities of urban development, and will modify these strategies as needed.

As we noted in **Chapter 2**, the tab for completing all these projects comes to just over **\$638 million** in constant 2000 dollars. Because of the cost and chronically scarce funding, the plan's proposed network improvements must be staggered over time. We cannot build them all at once. And before construction can begin, each improvement must first be engineered on the drawing board. Then, unless enough right-of-way is already controlled, there must be negotiations with adjoining property owners to acquire it. Money must be allocated to complete these jobs before construction can

start. And construction can take weeks, months or years depending on a project's complexity.

Table 6 and **Figure 10** show how our road network will look if we were to complete all proposed improvements by 2025. In this version, all improvements are integrated into the network, and all roads are designated by functional classification: interstate, arterials and connectors. **Figures 1 and 2** in **Chapter 2** highlight just the road improvements projected for each period. These should be referred to when reading this portion of the text.

We have worked out the timing of these improvements resulting in a "staged implementation program". The reader will find these programs in **Tables 7, and 8**, further on in this chapter; there is one for each time period. For clarity, each proposed improvement has been assigned a letter and number which will be used in the text and in the tables. The letter is keyed to the jurisdiction responsible for building the improvement:

- L = City of Lafayette;
- W = City of West Lafayette;
- C = Tippecanoe County;
- I = Indiana Department of Transportation;
- P = Private developers.
- D = Town of Dayton

The proposed timing takes into account a number of factors:

- financial resources expected to be available;
- project implementation lead time;
- system flexibility requirements;
- coordination with other community development projects; and
- responsible fiscal management.

Table 6 Planned Improvements: 1999 – 2025 Note: "*" Project Needed but Shown for Illustrative Purposes			
Improvement	Functional Class	Improvement	Functional Class
<i>NEW ROAD CONSTRUCTION</i>			
SR 25, I-1	Primary Arterial	Park East, P-1	Collector
US 231, I-11	Primary Arterial	Stable Drive, P-2	Collector
US 231, I-12	Primary Arterial	Park East, P-3	Collector
US 231, I-13	Primary Arterial	Collector N., P-4	Collector
Park Road, I-14	Collector	Collector S., P-5	Collector
US 231*, I-22	Primary Arterial	CR 900E, C-4	Collector
SR 43B*, I-24	Primary Arterial	McCarty Lane, C-6	Minor Arterial
Shenandoah, L-13	Collector	McCarty Lane, C-7	Minor Arterial
Twyckenham, L-22	Minor Arterial	CR 500S, C-12	Collector
Twyckenham, L-23	Minor Arterial	Cumberland, C-13	Collector
Twyckenham, L-24	Minor Arterial	Cumberland, W-1	Collector
Erie Street, L-5	Collector	Harrison Bdg., W-2	New Ramp
Duncan Road, L-27	Collector	Tapawingo N., W-8	Collector
Farabee Drive, L-28	Collector	Tapawingo S., W-9	Primary Arterial
Yost Drive, D-1	Collector	Cherry Lane, W-10	Collector
<i>2 LANE IMPROVEMENTS</i>			
CR 430S, C-3	Local	South River Rd, C-8	Collector
CR 200S, C-1	Collector	New Castle, C-14	Collector
<i>3 LANE IMPROVEMENTS</i>			
Duncan Road, L-11	Primary Arterial	CR 550E, C-9	Local
<i>4 LANE IMPROVEMENTS</i>			
SR 25, I-2	Primary Arterial	Earl Avenue, L-4	Minor Arterial
SR 25, I-3	Primary Arterial	Farabee, L-6	Collector
SR 25, I-4	Primary Arterial	Greenbush Av., L-8	Minor Arterial
SR 26, I-6	Primary Arterial	Greenbush Av., L-9	Minor Arterial
SR 26, L-14	Primary Arterial	Main Street, L-10	Primary Arterial
SR 43, I-8	Primary Arterial	North 9 th St., L-11	Primary Arterial
SR 25*, I-15	Primary Arterial	Old Romney, L-12	Minor Arterial
SR 26, C-17	Primary Arterial	South 9 th St., L-15	Minor Arterial
SR 26, C-18	Primary Arterial	South 9 th St., L-16	Minor Arterial
SR 26, I-18	Primary Arterial	South 9 th St., L-17	Minor Arterial
SR 43*, I-19	Minor Arterial	South 9 th St., L-18	Minor Arterial
SR 43, I-20	Primary Arterial	South 18 th St., L-19	Minor Arterial
US 231, I-25	Primary Arterial	South 18 th St., L-20	Minor Arterial
Brady Lane, L-1	Minor Arterial	South 18 th St., L-21	Minor Arterial
Concord Rd., L-2	Minor Arterial	CR 350S, L-25	Minor Arterial
CR 350S, L-3	Minor Arterial	Beck Lane, L-26	Collector

Table 6 Continued Planned Improvements: 1999 – 2025 Note: "*" Project Needed but Shown for Illustrative Purposes			
Improvement	Functional Class	Improvement	Functional Class
<i>4 LANE IMPROVEMENTS</i>			
Old US 231, L-29	Primary Arterial	CR 200N, C-2	Minor Arterial
9 th Street, L-30	Minor Arterial	Klondike Rd., C-5	Collector
Kalberer Road, W-3	Collector	Concord Rd., C-10	Minor Arterial
Lindberg Road, W-5	Minor Arterial	CR 500S, C-11	Collector
Lindberg Road, W-6	Minor Arterial	North 9 th , C-15	Collector
N. River Road, W-7	Primary Arterial	South 18 th St., C-16	Minor Arterial
<i>5 LANE IMPROVEMENTS</i>			
SR 26, I-5	Primary Arterial	SR 43, I-7	Primary Arterial
<i>6 LANE IMPROVEMENTS</i>			
SR 26, I-17	Primary Arterial	I-65, I-21	Interstate
<i>TRAFFIC SIGNALS</i>			
US 231, I-10		Kalberer Road, W-4	
Greenbush Av., L-7			
<i>INTERCHANGES: NEW or MODIFIED</i>			
I-65, I-9		US 231*, I-23	
SR 26*, I-16			

Note: Projects Needed but Shown for Illustrative Purposes Only

This project list is so noted in response to INDOT's letter dated April 26, 2001. For more information see **Appendix 4**.

Projects not in agreement with INDOT Plan but are under study and should be shown in illustrative list:

SR 26 - Modified Interchange at US 52 (I-16)
 US 231 - US 52 to I-65 (I-22)
 US 231 - Interchange at I-65 (I-23)

Projects not in agreement with INDOT Plan and not under study and may be shown in the illustrative list as unfunded needs:

Planning Period 1999 to 2010

SR 25 - Old Romney to US 231 (I-2)
 SR 25 - SR 25/US 231 to Teal Road (I-3)
 SR 25 - 4th to 18th (I-4)

Planning Period 2011 to 2025

SR 25 - CR 375 to new US 231 (I-15)
 US 231B - I-65 to SR 43 (I-24)
 SR 43 - State Park Road to I-65 (I-19)

Figure 10
Planned Improvements - Urban

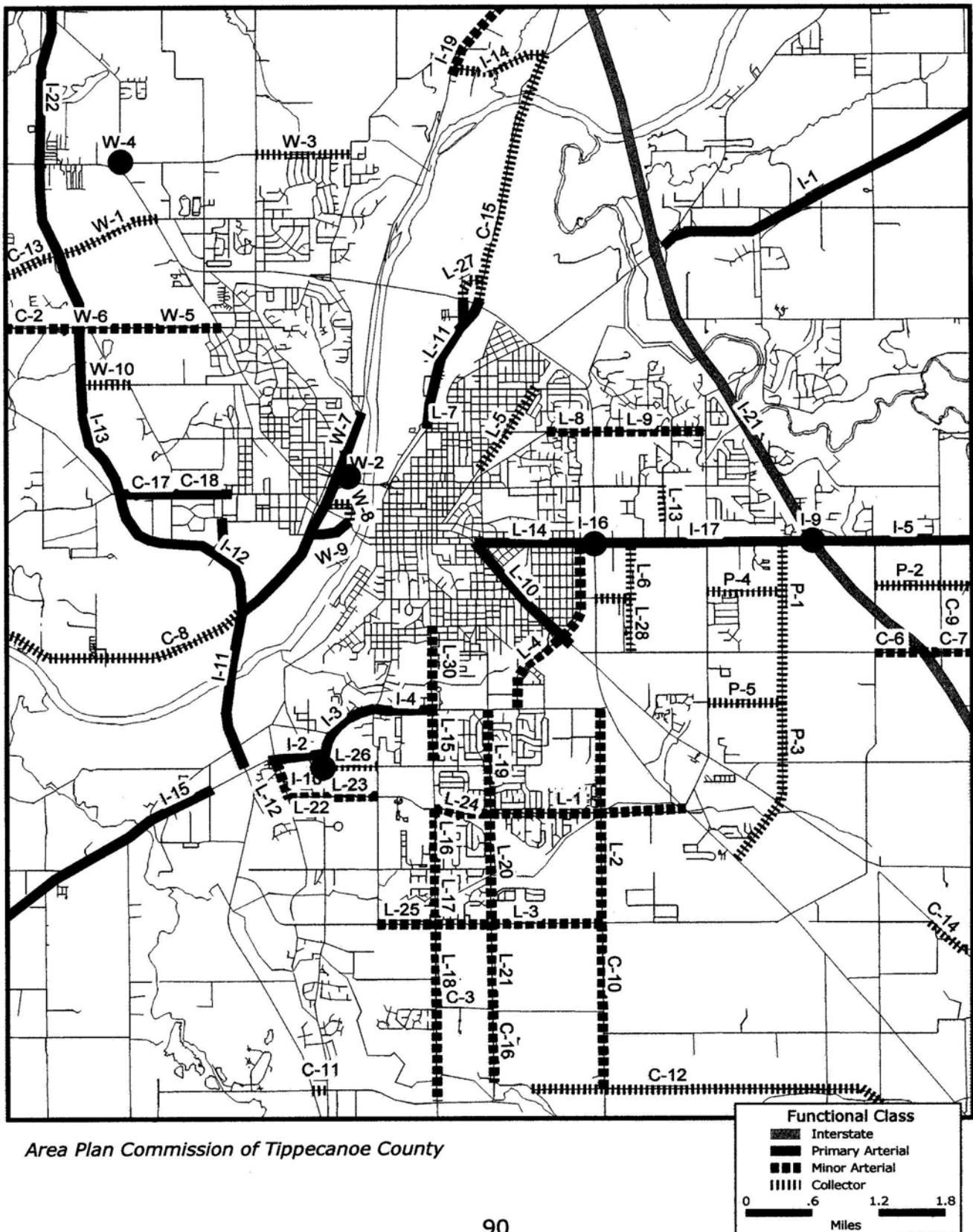
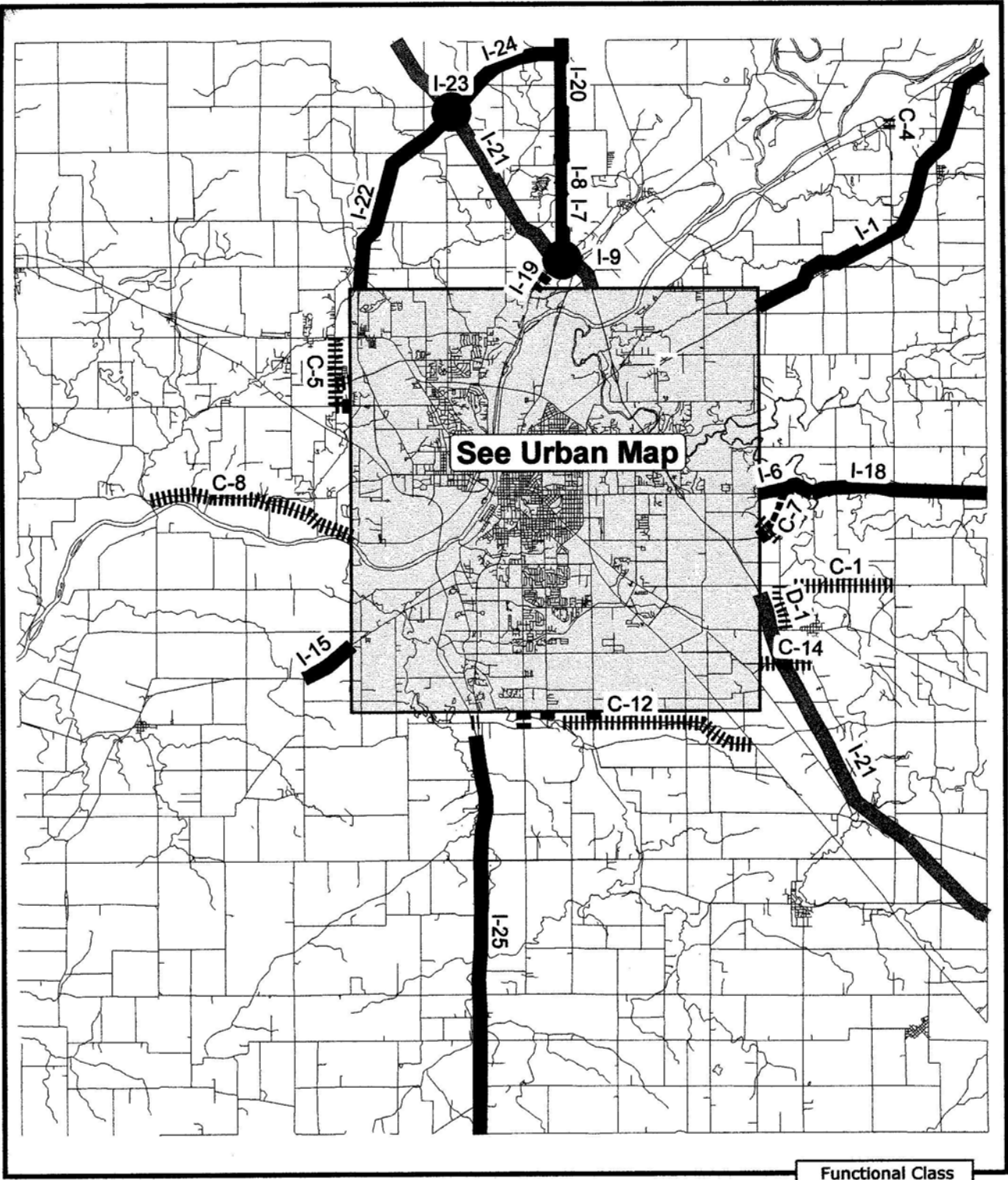


Figure 10
Planned Improvements - Rural



Area Plan Commission of Tippecanoe County

Functional Class

- Interstate
- Primary Arterial
- Minor Arterial
- Collector

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Miles

THE FIRST ELEVEN YEARS: 1999-2010

The portion of the plan dealing with the first decade matches up committed projects with anticipated growth patterns. We continue to promote a ring-road, or circumferential, approach to solving traffic congestion problems, as we had in 1978, 1991, and 1997. Improving our outer loops will be supplemented by better radial streets carrying traffic from the periphery to the center. For a graphic summary of committed projects, see **Figure 1** in **Chapter 2**. **Table 7** shows the corresponding Staged Implementation Program, by jurisdictions.

One ring-road has been created with the connection of Creasy Lane to Brady Lane. Eventually it will connect to the old US 231 and SR 25 by way of Twyckenham Boulevard. A second ring connects CR 500 E/475 E and State Road 38 (near the SIA plant) to a widened CR 350S, extended west to US 231. The western leg of the outer ring will be the new US 231 alignment, with its new south river bridge to a widened South River Road.

The southern stretch of the inner ring will be improved by extending Brady Lane from its current terminus at 18th Street to intersect with old US 231 (L-23, & L-24): four new lanes with a bridge over the Norfolk Southern Railroad tracks will be built from 18th to 9th, where Brady will become Twyckenham Boulevard; four lanes will also be built from the west end of Twyckenham (at CR 50E), terminating at Old US 231.

Another key connection is the continuation of Brady Lane or Twyckenham Boulevard to Old Romney Road (L-22) and improving Old Romney Road to SR 25 (L-12). This allows traffic to by-pass the US 231/SR 25 intersection.

Table 7
Staged Implementation for Network Improvements by Jurisdiction
(P = preliminary engineering, R = right-of-way acquisition, C = construction)
Dollars Shown in \$1,000

Project	1999	2000	2001	2002	2003	2004
<i>Lafayette</i>						
Brady, L-1			C:5,000			P:630
Concord, L-2						
CR 350S, L-3						
Earl, L-4						
Erie Street, L-5						
Farabee, L-6			R:150		C:2,500	R:25
Greenbush, L-7					P:20	
Greenbush, L-8					P:150	
Greenbush, L-9				P:400	R:100	C:4,000
Main, L-10				P:280	R:140	
N. 9 th & Duncan, L-11						
Old Romney, L-12						
Shenandoah, L-13						
South Street, L-14					P:330	
South 9 th , L-15						
South 9 th , L-16				R:80	C:1,626	R:80
South 9 th , L-17				P:300		
South 9 th , L-18						
South 18 th , L-19						P:330
South 18 th , L-20				P:300	R:80	C:2,000
South 18 th , L-21						
Twyckenham, L-22						
Twyckenham, L-23			C:1,430			
Twyckenham, L-24			R:75	C:6,370		
Total			6,655	7,730	4,946	7,065
<i>West Lafayette</i>						
Cumberland, W-1						P:160
Harrison Bdg, W-2			P:15	C:220		
Kalberer, W-3				C:800		
Kalberer, W-4					P:25	R:5
Lindberg, W-5			C:4,620			
Lindberg, W-6						
North River Rd, W-7					P:100	
Tapawingo, W-8						P:150
Tapawingo, W-9					R:2,000	
Total			4,635	1,020	2,125	315

Table 7 Continued
Staged Implementation for Network Improvements by Jurisdiction
(P = preliminary engineering, R = right-of-way acquisition, C = construction)
Dollars Shown in \$1,000

Project	2005	2006	2007	2008	2009	2010
<u>Lafayette</u>						
Brady, L-1		R:2,520		C:10,080		
Concord, L-2				P:160	C:1,200	
CR 350S, L-3		P:360		R:180		C:2,880
Earl, L-4						
Erie Street, L-5	Under Construction					
Farabee, L-6	C:350					
Greenbush, L-7	R:600		C:2,400			
Greenbush, L-8						
Greenbush, L-9	C:2,240					
Main, L-10						
N. 9 th & Duncan, L-11	Under Construction					
Old Romney, L-12	P:120		R:80		C:1,280	
Shenandoah, L-13	Project Complete					
South Street, L-14		R:1,320			C:5,280	
South 9 th , L-15		P:120		R:60		C:960
South 9 th , L-16		C:1,700				
South 9 th , L-17						
South 9 th , L-18	P:510		R:340		C:5,440	
South 18 th , L-19		R:220		C:3,520		
South 18 th , L-20						
South 18 th , L-21		P:240		R:160		C:2,560
Twyckenham, L-22						
Twyckenham, L-23						
Twyckenham, L-24						
Total	3,820	6,480	2,820	14,160	13,200	6,400
<u>West Lafayette</u>						
Cumberland, W-1		R:640		C:2,560		
Harrison Bdg, W-2						
Kalberer, W-3						
Kalberer, W-4	C:250					
Lindberg, W-5						
Lindberg, W-6	P:20		R:80		C:320	
North River Rd, W-7	R:400		C:1,600			
Tapawingo, W-8		R:2,600		C:1,600		
Tapawingo, W-9	C:1,500					
Total	2,170	3,240	1,680	4,160	320	

Table 7 Continued
Staged Implementation for Network Improvements by Jurisdiction
(P = preliminary engineering, R = right-of-way acquisition, C = construction)
Dollars Shown in \$1,000

Project	1999	2000	2001	2002	2003	2004
<i>Tippecanoe County</i>						
CR 200S, C-1						R:270
CR 200N, C-2						
CR 430S, C-3			C:1,000			
CR 900E, C-4						
Klondike, C-5						
McCarty Lane, C-6			R:120	C:4,977		
McCarty Lane, C-7			P:350	R:476	C:4,780	
South River Road, C-8				P:360		R:1,080
CR 550E, C-9					P:110	R:440
Total			1,470	5,813	4,890	1,790
<i>Indiana Department of Transportation</i>						
SR 25, I-1					P:5,700	
SR 25, I-2		P:180		R:720		C:2,880
SR 25, I-3		P:210		R:840		C:3,360
SR 25, I-4		P:330		R:1,320		C:5,280
SR 26, I-5				C:7,741		
SR 26, I-6			P:480			R:320
SR 43, I-7			C:6,300			
SR 43, I-8				C:2,000		
I-65, I-9						P:20
US 231, I-10	Under Construction					
US 231, I-11	Under Construction					
US 231, I-12		P:600		R:500	C:20,000	
US 231, I-13				C:1,650		
Prophetstown State			P:180		R:720	
Park Road, I-14						
Total		1,320	6,960	14,771	26,420	11,860
<i>Private Developers & Town of Dayton</i>						
Park East Drive, P-1			P:180		R:720	
Stable Dr, P-2				P:380		R:1,520
Yost Dr, D-1						P:220
Total			180	380	720	1,740
Totals, All Jurisdictions		1,320	19,900	29,714	39,101	22,770

Table 7 Continued
Staged Implementation for Network Improvements by Jurisdiction
 (p = preliminary engineering, r = right-of-way acquisition, c = construction)
 Dollars Shown in \$1,000

Project	2005	2006	2007	2008	2009	2010
<i>Tippecanoe County</i>						
CR 200S, C-1 CR 200N, C-2 CR 430S, C-3 CR 900E, C-4 Klondike, C-5 McCarty Lane, C-6 McCarty Lane, C-7 South River Road, C-8 CR 550E, C-9	P:480 C:2,420	R:180 P:40 C:8,280	 R:320	C:2,880 R:160	 C:5,120	 C:460
Total	2,900	8,500	320	3,040	5,120	460
<i>Indiana Department of Transportation</i>						
SR 25, I-1 SR 25, I-2 SR 25, I-3 SR 25, I-4 SR 26, I-5 SR 26, I-6 SR 43, I-7 SR 43, I-8 I-65, I-9 US 231, I-10 US 231, I-11 US 231, I-12 US 231, I-13 Prophetstown State Park Road, I-14		R:4,560	 C:7,620 R:300	 Under Construction Under Construction	C:80,000	 C:3,000
Total	2,200	4,560	7,920	11,550	80,000	3,000
<i>Private Developers & Town of Dayton</i>						
Park East Drive, P-1 Stable Dr, P-2 Yost Dr, D-1	C:2,880	C:6,080 R:880		C:3,520		
Total	2,880	6,960		3,520		
Totals, All Jurisdictions	13,970	29,740	12,740	36,430	98,640	9,860

It also allows those who live in this area's newly constructed homes better access to the Brady-Creasy ring-road system. This inner loop will be strengthened east of 18th Street. Brady Lane, more heavily traveled for having been extended east and west, will be further improved to four lanes between 18th Street and US 52 (L-1).

Even further in, a series of projects will improve travel along State Road 25S from Old Romney Road to US 231 (I-2), up and down US 231 from the southern SR 25 and US 231 intersection to Teal Road (I-3), and out Teal from South 4th to South 18th (I-4). These all involve widening to four lanes. (We have advocated widening Teal Road since the 1978 plan; and now it is essential.) The east side of that inner loop, Earl Avenue, will be widened to four lanes from South Street to Teal Road (L-4), further relieving pressure on Sagamore Parkway in Lafayette.

The western leg of the outer ring will be the much-needed, long-heralded, realigned US 231 with its new Wabash River bridge (I-11). Beginning about a mile south of McCutcheon High, a new US 231 now veers off slightly west of its current alignment (which becomes 4th Street in Lafayette), and will cross the river (between the Lafayette sewage treatment plant and Eli Lilly), to South River Road. Nearly all of it will be four lanes. South and North River Roads will be beefed up to five lanes from the new bridge on the south to the Harrison Bridge on the north. Ramps are being built connecting North River Road to the Harrison Bridge. South of the River, new US 231 will be a limited access facility. Except for intersections with CRs 500S, 400S, extended 350S, 275S and State Road 25, vehicles will not be permitted to enter the road. That means no tangle of driveways, and a much better traffic flow. Already the portion between CR 500S and SR 25 is open with the remainder to be open this year.

For the first time, motorists from the east and south sides of Lafayette, from Dayton and beyond, and from northbound US 231 and I-65, will not have to drive through downtown Lafayette to get to Purdue University and the Westside (West Lafayette). Traffic congestion downtown, on the downtown bridges and on South 4th Street, will be significantly reduced. On the down side -- until a western bypass around West Lafayette can be added later in this decade -- university-bound traffic will be still funneled through West Lafayette's Levee and Village.

Another of this decade's most ambitious projects will continue the western leg of the new circumferential road system. Newly aligned US 231 will be extended from its intersection with South River Road all the way to Sagamore Parkway (US 52), west of West Lafayette (I-12 & 13). In phase one (I-12), four new lanes will be built from the South River Road intersection, around the east and north sides of Purdue Airport, across Airport Road, then on up to meet State Road 26 east of the Newman Road intersection. To link this with the south side of campus, Intramural Street will be extended southwesterly to the US 231 extension.

In a second phase (I-13), US 231 will be extended from its State Road 26 intersection in a new four-lane limited access corridor to join McCormick Road just north of its intersection with Lindberg. McCormick Road will then be four-laned to carry US 231 from that point north to US 52.

Several projects are designed to relieve congestion north and east of the downtown. To improve access from the north, Duncan Road from US 52 to North 9th Street, and North 9th Street from Duncan Road to Canal Road, will be widened to three lanes and four lanes respectively (L-11). Congestion will also be reduced through improvements to Greenbush Street at 14th and

15th Streets (L-7). Instead of having to stop at one intersection and then another in such a short distance, coordinated traffic signals will allow traffic to flow smoother.

There are also several projects planned on the east side of Lafayette. One involves widening Farabee Drive and a portion of Kossuth Street (L-6). This improvement will offer a better by-pass around the congested intersection of Sagamore Parkway and South Street. Purchasing the additional land is scheduled for this period with construction to follow in 2003. The City has already completed the connection of Shenandoah between Union Street and Rome Drive (L-13). This collector provides access between SR 26 and Union Street without having to use either Sagamore Parkway or Creasy Lane. Improvements to SR 26 east of the Interstate (I-5 & I-6) will also be taking place. Although construction won't occur until 2002 for the first phase, the State will be purchasing necessary land for this five-lane improvement soon. Pushing the four lane improvements past CR 550E won't take place till later this decade.

Improvements to the radial arms of the network will all involve adding traffic lanes. To better handle residential traffic going to and from the developing northeast, Greenbush Streets will be four-laned from Elmwood east to US 52 (L-8) and then on to Creasy Lane (L-9). Both improvements will ease congestion on Sagamore Parkway and State Road 26.

South of Lafayette, housing continues to grow. The preferred way to ease congestion here is to widen the north/south corridors from two to four lanes. Targeted for these improvements are 9th Street, 18th Street and Concord Road. With the staging over four projects, 9th Street will be widened from Teal Road south to CR 510S (L-15, 16, 17, & 18). In a similar fashion, 18th

Street will be widened from Teal Road to CR 430S (L-19, 20, & 21). Finally later this decade, Concord Road will be widened from Teal Road to CR 350S (L-2).

Because it runs from the heart of the city to the retailing centers to the southeast, and interconnects with major arterials along the way and beyond, Main Street has always been a very attractive path to travel. Its attractiveness will only increase with time. Congestion on Main Street will finally be relieved by widening it to four lanes between South Street to just south of Earl Avenue (L-10).

Like Main Street, South Street is another major east/west arterial thus attracting a large volume of traffic. Unlike the one-way pair's downtown or the four lanes east of Sagamore Parkway, between Main Street and Sagamore Parkway, travelers are funneled through only two travel lanes. Congestion is quite evident when a vehicle is making a left hand turn. This Plan Update calls for this section to be reconfigured as four lanes (L-14) thus increasing its capacity.

All aspects of Railroad Relocation will either have been completed or at least begun by 2001. A new riverfront corridor in Lafayette is now carrying both the CSX and NS lines that ran up 5th Street and across town diagonally. Phases 1 through 4 have been completed with Phase 5 nearly complete. The last project connected with this massive project is the extension of Erie Street northward past Greenbush Avenue to Underwood Avenue (L-5).

West of the River, another project will help ease congestion problems. Lindberg Road from Northwestern Avenue out to McCormick Road will be reconstructed as a widened four-lane road (W-5). In addition to widening,

the project includes a bicycle and pedestrian path. This will complement the bicycle and pedestrian trail that was built between the Celery Bog Park and Purdue University. Another companion project includes widening Lindberg Road or CR 200N from Klondike Road to McCormick Road (C-2 & W-6). Similar to the improvements just to the east, it will be improved and widened to four lanes.

To relieve congestion and provide better access on West Lafayette's north-south arterials, Cumberland Avenue will be extended from its current terminus at US 52 southwesterly to intersect McCormick Road (W-1). This two-lane road will connect West Lafayette's north side residential neighborhoods to the west side of campus, the airport, and the rest of the ring-road to Lafayette's south and east sides. Kalberer Road between Salisbury Street and Soldiers Home Road (W-3) will be improved and widened too.

There are also several projects planned to help alleviate congestion caused by the relocation of US 231. When US 231 is completed, large volumes of traffic will be funneled through the State Street and River Road intersection, and then be forced to merge into two lanes north of the Harrison Bridge. For the five point intersection, the City intends to build a by-pass to the southeast (W-9). Vehicles will have the ability to access the southern portions of Campus on an extended Tapawingo Drive without having to travel through the State Street and River Road intersection. Congestion will be reduced at the two lane portion of North River Road by widening it to four lanes (W-7) as far as Happy Hollow Road. Construction is targeted for 2007.

The City of West Lafayette has targeted two additional improvements. In the Levee, as part of the improvements the City has planned, a new road

will be built to carry through traffic. Tapawingo Drive (W-8) would be extended northward and then curve westward when it reaches the outer fringes of the Levee parking lot. Eventually it will intersect with Howard Avenue. Just to the north, the City will fix the Harrison Bridge (W-2) and River Road Interchange. No provisions in the US 231 reconstruction project were included to allow southbound vehicles on River Road to access the bridge. This project would add that ramp.

Just a mile south of SR 26, the county will continue McCarty Lane over the Interstate (C-6). In addition to a new bridge over I-65, new road construction will continue eastward and eventually tie into SR 26 around CR 675E (C-7). Between the State Road and McCarty Lane, Stable Drive (P-2) will be built. This collector will provide a critical connection between the explosive subdivision growth and the surrounding arterial system. The County will also reconstruct CR 550E (C-9) from McCarty Lane to SR 26. It will be constructed as a three-lane improvement with a center shared left turning lane.

In the 90's the County improved Haggerty Lane or CR 200S from SR 38 to Dayton Road. In 2000, the next phase was let for construction. The improvements stretch eastward to CR 900E. Likewise, the County will improve CR 430S from 9th Street to 18th Street (C-3) for the new elementary school. Already started, the County will super two-lane South River Road from CR 700W to relocated US 231 (C-8). Just to the north, Klondike Road (C-5) will be widened to four lanes later this decade. Finally, on the northeastern side of the County, CR 900E (C-4) will be extended northward making a direct connection to SR 25.

The area just north of the Interstate, at SR 43, is experiencing explosive growth in both businesses and housing. In addition, commuter traffic continues to increase. To accommodate this increasing vehicular demand, SR 43 will be widened to five lanes between the Interstate and CR 625N (I-7). It then will be widened to four lanes to CR 725N (I-8). Construction is targeted to begin in 2002.

While not as massive as the SR 43 projects, a new two-lane collector connecting SR 43 to North 9th Street at Swisher Road will be built. This improvement is tied to the new Prophetstown State Park (I-14). The Park and all its related attractions are projected to be complete later this decade.

The Greater Lafayette area will see another major improvement on a scale matching the Relocation of US 231 and Lafayette's Railroad Relocation projects. Since the mid 80's, INDOT has been improving SR 25 and SR 24, the Hoosier Heartland Corridor, between Lafayette and Fort Wayne. The improvements are targeted to boost and foster economic development along the entire corridor. Close to Lafayette, SR 25 is also used extensively as a route for commuter traffic.

Since this is a large multi-billion dollar project, it has been divided into smaller more manageable pieces. The Lafayette to Logansport portion is one of the last sections to be improved. Currently Presnell Associates of Indiana is in the process of selecting a new route location. The Area Plan Commission has examined the routes and choose a new alignment that parallels the Norfolk Southern railroad tracks (I-1).

The new road design will be comparable to the southern portion of relocated US 231. There will be two travel lanes in each direction separated by a

grassed median. Access will also be limited to only a select few locations. The new road will not act as a wall or barrier between the northern and eastern parts of the County. At certain locations, bridges will be built over the new road and railroad tracks providing a safer means of travel and access.

No matter where you travel, Interchanges act like magnets for highway oriented business and development. Those in Tippecanoe County are no different. While the node at SR 26 is the worst, the one just north at SR 43 is becoming more congested too. INDOT has targeted these two interchanges for improvements (I-9) with construction slated later this decade.

Private development of commercial Park East properties in the southwest quadrant of the I-65/State Road 26 interchange, will add an important north-south connector in that part of town. A two-lane road will be built by developers to connect State Road 26 to McCarty Lane (P-1). A portion has already been constructed in conjunction with the opening of Super Wal-Mart.

A similar improvement has been targeted near the town of Dayton. A collector (D-1) has been programmed to be built between and parallel to the Interstate and Dayton Road. This new collector will serve anticipated growth in this area. It will connect CR 200S and SR 38.

THE LAST FIFTEEN YEARS: 2011-2015

The same themes, build ring-roads and improve the radials that serve them, that dominate the past period continue into this one. Not only are these improvements a major focus, but new parallel roads are also proposed.

Figure 2 in **Chapter 2** highlights these improvements. **Table 8** shows the corresponding Staged Implementation Program, by jurisdictions.

Ultimately, construction of US 231 (I-22) would continue northward to a new Interchange at I-65 (I-23). Unlike the urban four lane design south of US 52, this new construction will be similar to US 231 south of SR 25: a four-lane highway with a grassy median divide. It will be a limited access highway, meaning vehicles can only access it from county roads and no driveways will be allowed to connect to it.

Construction will not stop at the Interchange. A new road, similar in design to US 231, will be built between I-65 and SR 43 (I-24) just south of the county line. Our traffic model shows that this link is very attractive and does relieve congestion on SR 43 north of the Interstate as well as other north/south county roads. We have labeled this SR 43B.

Radial improvements are programmed both east and south of Lafayette and west of West Lafayette. In West Lafayette, a key connection will be made between extended Cumberland Avenue to Klondike Road at CR 250N (C-13). This new road will allow persons to travel from CR 400W to Soldiers Home Road or *vice versa*. Widened two lane standards will be followed when it is constructed. Just south, Cherry Lane will be extended to Relocated US 231 (W-10).

Table 8 Staged Implementation for Network Improvements by Jurisdiction (P = preliminary engineering, R = right-of-way acquisition, C = construction) Dollars Shown in \$1,000, Note: "*" Project Needed but Shown for Illustrative Purposes						
Project	2011	2012	2013	2014	2015	2016
<u>Lafayette</u>						
CR350S, L-25		P:180		R:120		C:1,920
Beck Lane, L-26						
Duncan Road, L-27	P:40		R:120		C:640	
Farabee, L-28		P:90		R:60		C:510
Old US 231, L-29						
South 9 th , L-30						
Total	40	270	120	180	640	2,430
<u>West Lafayette</u>						
Cherry Lane, W-10		P:100		R:400		C:1,600
<u>Tippecanoe County</u>						
Concord Road, C-10						
CR 500S, C-11	P:60		R:40		C:640	
CR 500S, C-12		P:140		R:560		C:2,240
Cumberland, C-13						
New Castle, C-14			P:690		R:460	
North 9 th , C-15					P:210	
South 18 th , C-16						
SR 26, C-17	P:150			R:600		
SR 26, C-18			P:150			R:600
Total	210	140	880	1,160	1,310	2,840
<u>Indiana Department of Transportation</u>						
SR 25*, I-15						
SR 26,* I-16	P:660		R:660			C:8,800
SR 26, I-17					P:1,140	
SR 26, I-18	P:360			R:240		
SR 43*, I-19						P:780
SR 43, I-20		P:9,520			R:9,520	
I-65, I-21						
US 231*, I-22	P:1,710			R:4,560		
US 231*, I-23	P:300			R:1,000		
SR 43B*, I-24			P:780			
US 231, I-25						
Total	3,030	9,520	1,440	5,800	10,660	9,580
<u>Private Developers</u>						
Park East Drive, P-3			P:440		R:1,760	
Collector North, P-4				P:80		R:320
Collector South, P-5				P:80		R:320
Total			440	160	1,760	640
Total All, Jurisdictions	3,280	10,030	2,760	7,700	14,370	17,090

Table 8 Continued Staged Implementation for Network Improvements by Jurisdiction (P = preliminary engineering, R = right-of-way acquisition, C = construction) Dollars Shown in \$1,000, Note: "*" Project Needed but Shown for Illustrative Purposes						
Project	2017	2018	2019	2020	2021	2022
<u>Lafayette</u>						
CR350S, L-25 Beck Lane, L-26 Duncan Road, L-27 Farabee, L-28 Old US 231, L-29 South 9 th , L-30	P:250	P:50	R:2,250	P:160	C:1,750	C:400 R:80
Total	250	50	2,250	160	1,750	480
<u>West Lafayette</u>						
Cherry Lane, W-10						
<u>Tippecanoe County</u>						
Concord Road, C-10 CR 500S, C-11 CR 500S, C-12 Cumberland, C-13 New Castle, C-14 North 9 th , C-15 South 18 th , C-16 SR 26: C-17 SR 26: C-18	C:7,360 R:140 C:2,400	P:640	C:2,240 C:2,400	P:477 R:2,360	P:180	R:318 C:11,640
Total	9,900	640	4,640	2,837	180	11,958
<u>Indiana Department of Transportation</u>						
SR 25*, I-15 SR 26*, I-16 SR 26, I-17 SR 26, I-18 SR 43*, I-19 SR 43, I-20 I-65, I-21 US 231*, I-22 US 231*, I-23 SR 43B*, I-24 US 231, I-25	C:3,840 C:19,950 C:8,000 P:2,670	P:1,020 R:1,520 C:95,200	R:1,040 C:9,100	C:6,000 R:3,560	R:1,360 C:12,160	C:8,320
Total	34,460	97,740	10,140	9,560	13,520	8,320
<u>Private Developers</u>						
Park East Drive, P-3 Collector North, P-4 Collector South, P-5	C:7,040	C:1,280 C:1,280				
Total	7,040	2,560				
Total All, Jurisdictions	51,650	100,990	17,030	12,557	15,450	20,758

Table 8 Continued Staged Implementation for Network Improvements by Jurisdiction (P = preliminary engineering, R = right-of-way acquisition, C = construction) Dollars Shown in \$1,000, Note: "*" Project Needed but Shown for Illustrative Purposes						
Project	2023	2024	2025			
<u>Lafayette</u>						
CR350S, L-25 Beck Lane, L-26 Duncan Road, L-27 Farabee, L-28 Old US 231, L-29 South 9 th , L-30		C:1,280				
Total		1,280				
<u>West Lafayette</u>						
Cherry Lane, W-10						
<u>Tippecanoe County</u>						
Concord Road, C-10 CR 500S, C-11 CR 500S, C-12 Cumberland, C-13 New Castle, C-14 North 9 th , C-15 South 18 th , C-16 SR 26: C-17 SR 26: C-18	R:540	C:5,088	C:4,140			
Total	540	5,088	4,140			
<u>Indiana Department of Transportation</u>						
SR 25*, I-15 SR 26*, I-16 SR 26, I-17 SR 26, I-18 SR 43*, I-19 SR 43, I-20 I-65, I-21 US 231*, I-22 US 231*, I-23 SR 43B*, I-24 US 231, I-25	C:28,480	C:10,880				
Total	28,450	10,880				
<u>Private Developers</u>						
Park East Drive, P-3 Collector North, P-4 Collector South, P-5						
Total						
Total, All Jurisdictions	29,020	17,248	4,140			

Closer to Purdue, the model shows that State Street or SR 26 continues to act as a major gateway into campus. Traffic volume east of relocated US 231 is congested and quite difficult to travel on if it remains two-lanes. Therefore, SR 26 from the intersection of US 231 eastward to Intramural needs to be widened to four travel lanes (C-17 & 18).

In Lafayette, four roads are targeted for expansion from two to four lanes. Next to each other, Beck Lane from Old US 231 to CR 50E (L-26) and Old US 231 between SR 25 and Beck Lane (L-29) are slated for widening. The CR 350S by-pass continues to attract vehicles to the point where it can no longer handle the volume safely between CR 50E and South 9th Street (L-25). This section is slated for widening around 2020. Finally, citizens suggested 9th Street (L-30) between Central Avenue and Teal Road be widened. Unlike the other three projects, 9th Street is already wide enough to accommodate the two extra lanes. Parking will be removed and the road restriped to four lanes.

The County's radial improvements are also located south of Lafayette. Continuing the four lanes improvements from the previous decade, both South 18th Street (C-16) and Concord Road (C-10) need to be widened further south: South 18th Street to Wea School Road and Concord Road to CR 500S.

Congestion continues to plague the SR 26 corridor west of the Interstate. Both through and site generated traffic push the need for additional capacity. By 2025, the section west of the Interstate reaches over 50,000 vehicles a day. A four-lane road simply won't handle this traffic. In this phase of the Plan, SR 26 is to be widened to six lanes (I-17).

A modified interchange will be built at the intersection of South Street and Sagamore Parkway (I-16). Unlike a diamond or cloverleaf interchange, this design is new. Through and right-turning vehicles would continue to use the existing intersection, but all left-turning vehicles would be directed to a secondary elevated intersection.

In the County, two projects are programmed that will provide better access. In the 90s, CR 350S from CR 450E to New Castle Road was widened and built as a super two-lane road. The first improvement continues upon these improvements eastward. New Castle Road will be widened to a super two lane configuration and CR 375S will be realigned and improved to Dayton Road (C-14). Currently CR 500S ends at South 18th Street. East of South 18th Street, there are no good connections to US 52 until CR 800S. First, the gravel road between Concord Road and CR 450E will be reconstructed as a super two-lane. To the west of Concord Road, a new road will be built over to Wea School Road. To the east of CR 450E, a new road will be built to US 52 at Wyndotte Road. This is project C-12.

In the previous decade, a private collector is built (Park East Drive). In this time frame, Park East Drive will be extended southward (P-3) connecting to SR 38 and eventually to US 52. By doing so, it provides an alternative route for north/south travelers between Creasy Lane and CR 500E. This new collector will be built to a two-lane standard configuration. In conjunction with this project, two collectors will connect Park East Drive to Creasy Lane. One between SR 26 and McCarty Lane (P-4) and the other between McCarty and Haggerty Lane (P-5).

Already programmed in INDOT's Long Range Plan, I-65 will be widened to six lanes from SR 38 and SR 43. Our traffic model confirms the need. Our

model also shows that the remaining sections of the Interstate in Tippecanoe County surpass capacity limits before 2025 if improvements are not done. So this Plan update programs widening its entire length (I-21) during the last decade and a half to match INDOTs estimated construction date.

Between 1990 and 1999, the number of working commuters from the surrounding eight Counties increased 45%. While we do not foresee this level continuing, we do anticipate a continual increase. Our traffic model shows that SR 43 north of CR 725N, SR 26 east of the Wildcat Creek, and US 231 south of CR 500S will be over capacity because of these commuter trips. Volumes projected even surpass the capacity of a super two-lane facility. Therefore this Plan calls for all three State Roads (I-18, 20 & 25) as well as SR 25 from CR 375W to relocated US 231 (I-15) to be widened to four lanes.

During this last phase of the Plan, Prophetstown State Park with all its amenities will be open. Like other State Parks, they are very attractive places to visit. To handle the Park as well as local traffic, SR 43 (I-19) between the new Park road and the Interstate, and North 9th Street (C-15) from Swisher Road south to US 52 needs to be widened to four lanes.

Three other improvements are slated during this phase of the Plan. Currently only a small portion of Duncan Road exists north of Sagamore Parkway. Just to the north, the area is prime for commercial development. To make this area more accessible, the City will extend Duncan Road (L-27) and connect it back to North 9th Street. Currently Farabee Drive terminates just south of Kossuth Street. The Plan includes the City extending it southward and connecting it to McCarty Lane (L-28). Finally, because of increasing congestion, CR 500S between old US 231 and relocated US 231 (C-11) needs to be widened and improved to four travel lanes.

MEETING COMMUNITY GOALS

In **Chapter 1** we alluded to the adopted goals and objectives that give direction to the comprehensive planning process in Tippecanoe County. The reader can find these in our 1976 publication, ***Goals and Objectives Formulation Process***. Here we will reprint only the single goal and multiple objectives established for transportation planning, and then evaluate how this Transportation Plan measures up to them.

GOAL I

Develop a coordinated, safe, and interrelated transportation system, integrating thoroughfares, public mass transit, air facilities, rail systems, pedestrian ways and bike ways to adequately serve the entire community, compatible with anticipated land use, economic development, financial resources, and cooperative governmental and citizen action; linking Tippecanoe County and the Greater Lafayette area with the region, state and nation.

OBJECTIVES

- Plan for, design and develop a balanced multi-modal transportation system.
- Develop an area-wide circulation network to accommodate present and anticipated future traffic demands.
- Provide maximum accessibility to the area's major activity centers.
- Upgrade where possible, the circulation capacity of existing thoroughfares.

- Require that improvement projects utilize modern safety and design standards to minimize pedestrian/vehicle conflicts.
- Encourage the development of a highway system that diverts through traffic away from residential neighborhoods while providing accessibility.
- Minimize railroad/vehicle conflicts where possible.
- Reduce negative environmental effects in future transportation systems by recognizing social, environmental, and historical values of the community.

Traffic circulation and highway capacity will be much improved as we continue to build concentric ring-roads with widened radial roads to carry traffic between our residential neighborhoods and those places where we work, shop and go to school. Short connectors and extensions turn discontinuous north-south and east-west streets into valuable ring roads at relatively low cost. Crosstown and through traffic will be kept on our perimeters. Earl Avenue, Creasy Lane and CR 500E will join with Teal Road and State Road 25, Brady Lane and CR 350S to create well placed and useful eastern and southern legs of these rings. The new US 231 alignment from well south of Lafayette to northwest of West Lafayette will form the western leg. To get us from our rings to our centers, Greenbush Avenue, Main Street, South Street/State Road 26, South 9th Street, South 18th Street, Concord Road, North 9th/Duncan Road, Cumberland Avenue, and Lindberg Road will all be widened. It will be easier for us to work downtown, study at the University, shop at the Mall, visit a friend at the hospital.

To protect homes and businesses, new construction -- and its disruptions -- will be kept to a minimum. The network strives to improve mostly by extending, connecting and widening existing roads.

The massive and nearly complete Railroad Relocation project helped integrate rail facilities into the transportation fabric better than ever before. In this case, we are really integrating by separating. By creating a new corridor for trains along the riverfront, we enhance our safety, save our time and keep our air cleaner.

Public transit and air transportation facilities are key parts of the transportation system. Purdue Airport will benefit directly from a newly realigned US 231 and the improved circumferential road network. Drivers heading for the airport will no longer need to filter through downtown Lafayette and the Village. Preliminary plans to redesign the airport with its main terminal along South River Road are fully compatible with the proposed highway network. Clearly, buses and their passengers benefit from eased traffic congestion as much as drivers and passengers in cars and trucks.

Transit related issues are thoroughly addressed in the Transit Development Plan, as required by the US Department of Transportation's Federal Transit Administration. APC assisted CityBus prepare its most recent TDP in 1998. They will soon begin updating it. The TDP addresses CityBus's current capacities, and projects its future needs.

A large thrust of this updated Transportation Plan has been to find ways to help cars, trucks and buses make their way around and through our community. Obviously, there are other ways to get around. Many of us either walk or bike to work or school. Many more of us do these things for fun and for good health. Finding better ways to accommodate these transportation needs is not only a valid transportation planning function, but an essential one. To conserve fuel and keep our air breathable, we must get

people out of their cars, and either on their feet or bicycles, or into van pools or buses. We shouldn't need seven cars to take every eight of us to work each day, but we do. If we could change people's habits, fewer road improvements would be needed, and much money saved. These issues will be addressed as we enter the next phase of the on-going transportation planning process. That is called Management Systems.

MANAGEMENT SYSTEMS, TIP AND THE THOROUGHFARE PLAN

The Management Systems are one of several major tools we can use in the transportation planning process. Another, of course, is this long-range Transportation Plan. The other two are the Transportation Improvement Program (TIP) and the Thoroughfare Plan, both of which also relate to long-range planning.

Whereas a transportation plan takes a long-range, system-wide approach, Management Systems are meant as short-range plans for maximizing system efficiency. Management Systems projects are much smaller than transportation plan projects; they do not include proposals for new or widened roads. The two we use mostly are Highway Safety Management and Traffic Congestion Management.

Management Systems, then, are an adjunct to the Transportation Plan: they complement the long-range effort with smaller, short-range projects to make the system more efficient. Efficiency helps us conserve energy, reduce pollution, and in general, enhance our quality of life.

The next step for us, after adoption of this Transportation Plan, will be to focus more sharply on each of the management systems, specifically designed to complement this long-range plan.

The TIP, or ***Transportation Improvement Program***, is a capital budgeting tool that sets an on-going five-year timetable for funding transportation improvements. These projects come from both the Transportation Plan and Management Systems. The TIP includes all projects which are at least partially funded by the US Department of Transportation.

We prepare a new TIP for adoption each year, corresponding with the upcoming fiscal year. It specifies a timetable (much like our **Tables 7 and 8**), funding sources and the agency responsible for completing each project listed. These projects may be originated by any one of these six implementing agencies: the Cities of Lafayette and West Lafayette, Tippecanoe County, INDOT, CityBus and the Purdue Airport. Each year, after federal and state review of the TIP, we are notified which projects will actually be funded.

As we have noted before, situations change over time. As such, TIP projects are often drawn from those specified in the adopted Transportation Plan, but sometimes in a different time sequence. And in some cases, entirely new projects are included to help with new and unforeseen circumstances that have arisen since the Plan's adoption.

The Thoroughfare Plan is an element of the adopted ***Comprehensive Plan for Tippecanoe County***. It combines the functional classification of roads -- freeways, arterials and collectors -- with specific design standards

for each classification. As such, it derives from both the ***Transportation Plan*** and the ***Unified Subdivision Ordinance of Tippecanoe County***.

Currently roads are classified as either urban or rural. The dividing line is the US Census Bureau's Urbanized Area Boundary. Urban and rural roads are then further classified as being either residential, nonresidential or arterial. There are three subcategories of residential roads (place, local road, collector), two of nonresidential roads (local road, collector), and three of arterials (secondary, primary and divided primary). For each subcategory, standards are established regarding: minimum right-of-way width, minimum pavement, side ditch and shoulder widths, maximum grade, and five more characteristics dealing with the geometry of curves and cul-de-sacs.

The Thoroughfare Plan ensures that local governments and private developers will not only build new roads and widen existing ones to accepted standards, but will also help implement the Transportation Plan in the process.

Our most recent ***Thoroughfare Plan*** was adopted in 1981 and amended seven times since. Adoption of this updated Transportation Plan means further amendment of the ***Thoroughfare Plan*** as well. We will further adjust the Urbanized Area Boundary, and we will designate and redesignate roads to match the functional classifications established for them in the Transportation Plan.

TRADITIONAL FUNDING SOURCES

Road construction costs are huge and can be very difficult for local jurisdictions to bear. And as time goes on, dollars for transportation related improvements become scarcer. We are finding that, each year, the gap widens between what is made available and what is needed to build necessary improvements.

Thus, making transportation related fiscal decisions has become much harder and extremely crucial. Local officials have learned to be realistic in their expectations, and to carefully prioritize their lists of needed improvements. Because we do this, we are prepared to make informed decisions about what to improve when, as funds are found.

Dollars from a variety of local, state and federal sources have traditionally been made available for street and highway related improvements. We list the principal ones here, and more fully describe them in **Appendix 3**

1. Local Cumulative Bridge Fund;
2. Local Cumulative Capital Improvement Fund;
3. Local General Obligation Bonds;
4. Indiana Local Road and Street Account;
5. Motor Vehicle Highway Account;
6. Bridge Replacement Fund;
7. STP Urban;
8. STP Rural;
9. STP Enhancement;
10. STP Hazard Elimination Fund;
11. Interstate Reconstruction;

12. Minimum Guarantee Fund;
13. Railroad Relocation Fund;
14. Rail Highway Protection and Crossing Fund; and
15. National Highway System Funds.

All projects requesting Federal Aid Funds, as well as those strictly funded with local dollars, that are to be built within the Study Area Boundary, have to be programmed through the ***Transportation Improvement Program*** (TIP), prioritized, and then adopted by the Metropolitan Planning Organization. In our case, the Area Plan Commission is the MPO. Also, not all of these sources of funds are available for building segments of the road network; some can only be used to improve street safety at highway crossings.

ALTERNATIVE FUNDING SOURCES

Today, traditional sources may not provide enough funding to carry out all the projects proposed in this Transportation Plan. We list four alternative sources here, and once again, refer the reader to **Appendix 3** for full descriptions:

16. Annual License Excise Surtax;
17. County Wheel Tax;
18. Tax Increment Financing; and
19. Thoroughfare Project Fund.

The Excise Surtax and County Wheel Tax can provide extra funds for road construction and maintenance. These must be enacted at the same time.

We have not done this in Tippecanoe County. Tax Increment Financing (TIF) provides extra dollars for public infrastructure improvements in a specified area. It is based on an anticipated increase in property taxes to be collected from future development within that area. Local government created eight TIF Districts. Three of them cover redevelopment areas at the core of our two cities; five establish economic development areas at the urban fringe. These are the districts and their jurisdictions:

1. Creasy Lane/Brady Lane Economic Development Area (Lafayette);
2. Levee/Village Redevelopment Area (West Lafayette);
3. Kalberer Road/Cumberland Avenue/Blackbird Pond Economic Development Area (West Lafayette);
4. Creasy Lane/Treece Meadows Economic Development Area (Lafayette);
5. Central Lafayette Redevelopment Area (Lafayette);
6. Jefferson Square (Lafayette);
7. Redevelopment McCarty Lane (Lafayette); and
8. North 9th Street (Lafayette).

A FEW WORDS OF CAUTION

The reader will remember that this plan represents an optimal situation: This is as good as we can expect to get if funds become available to build all these projects by 2025. Realistically, this may not happen. Some projects may never get funded, others may not be realized until after 2025. And because community growth is fluid and can only be projected and not foreseen, new needs may arise that require entirely unforeseen projects to be proposed, included in a TIP, funded and built.

We also offer the reader this caution: Federal funding sources listed here and expanded on in **Appendix 3**, are based on the Surface Transportation Act for the 21st Century. Congress will amend that Act during 2003. Thus the type and availability of federal funding sources may change a little or a lot. And of course, changing economic conditions and shifting priorities always make the nature and extent of local and state funding uncertain as well.